March 25, 1986 THE NEW YORK TIMES, TUESD

SCIENCE WATCH

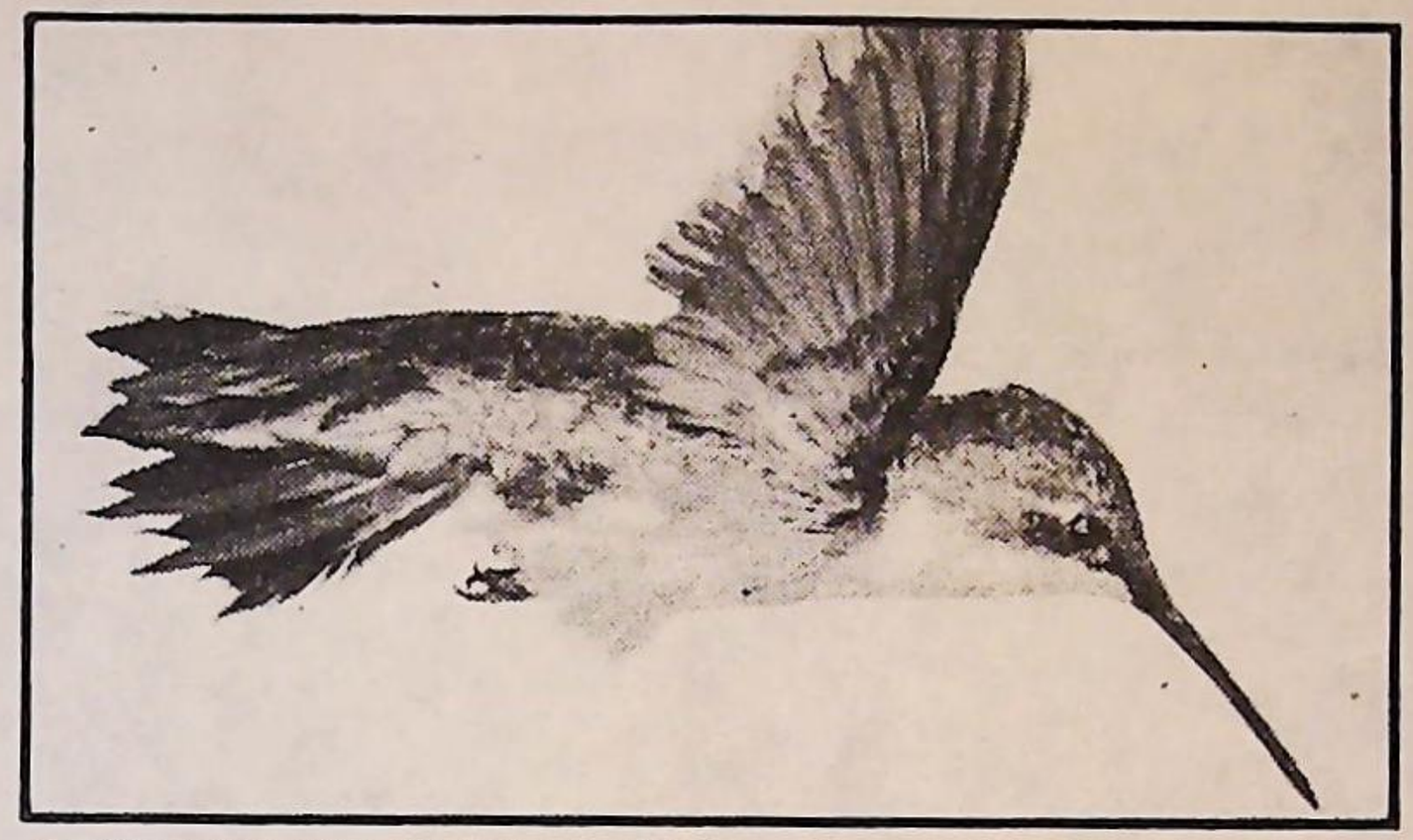
Thalidomide Found to Ease Transplants

THALIDOMIDE, the ill-fated sedative and tranquilizer that is seldom mentioned these days except as the classic example of drug tragedy, may have another limited chance at respectability.

In research with animals, scientists at Johns Hopkins University have found thalidomide promising as a preventive and as a treatment for graft versus host disease, the most severe complication of bone marrow transplantation. Except in marrow transplants between identical twins or perfectly matched siblings, graft versus host disease is often a deadly complication: The marrow makes a devastating immunological attack against the body into which it has been transplanted.

The Johns Hopkins scientists, led by Dr. Georgia Vogelsang, foundrats that 17 of 22 rats treated with thalidomide before bone marrow transplantation did not develop the disease and all but one of 23 other rats that already had the disease were saved from it, according to a report to be published in the journal Transplantation in May.

The drug was tried because of longstanding evidence that it has a suppressive effect on immune activity. More than 20 years ago, thalidomide use was halted because it caused severe birth defects in the babies of women who used it during pregnancy. Today it is sometimes used in treating leprosy, but its future possibilities are compromised by a shortage of the drug in a sufficiently pure form.



Appearances aside, the hummingbird spends most of the day doing nothing.

Do-Nothing Hummingbirds

Hummingbirds, the ultimate symbol of nervous energy, actually spend three-fourths of their days on a perch doing absolutely nothing. The reason, it appears, is that they need this time to process all the nectar they have ingested in their frenetic bouts of feeding. They must rest because they are too full to eat.

A study of Rufous and Anna's hummingbirds by Jared M. Diamond and others, reported in Nature, found that markers placed in sugars showed up in their excrement after only 15 minutes, and the average time through the body for all the markers was 49 minutes. The average for most birds, in contrast, is one to three hours, and for most mammals and lizards anywhere from two to 150 hours. Hummingbirds were able to extract about 97 percent of the glucose in the food.

Field observations indicate that Rufous hummingbirds feed for about one minute at a time, then rest about four minutes. The researchers concluded that the amount of feeding was limited by how quickly a bird could empty its crop, the part of the esophagus where consumed food is stored for release to the digestive tract.

A Living Fossil

As a rule, the fossil record leaves little doubt as to whether an animal or plant is extinct or alive, but every now and then a surprise turns up. One such surprise occurred in 1938, when fishermen off the coast of Africa caught a living coelacanth: a lobe-finned fish thought to have been extinct for 60 million years. Now another living fossil has come to light.

Reporting in the journal of the Paris Academy of Science, Dr. Michel Roux of the Université Claude Bernard Lyon has announced the discovery of a primitive animal of the subclass Inadunata of the sea lilies (crinoids). A relative of starfish and urchins, it had been believed extinct for 230 million years. As was the case with the modern-day coelacanth, the living crinoid (Guillecrinus reunionensis) had apparently evaded detection by inhabiting deep water. The five specimens caught by Dr. Roux off Réunion Island in the Indian Ocean were recovered at depths as great as 6,500 feet.

The finding seems certain to hearten cryptozoologists, who seek living specimens of supposedly extinct animals, including dinosaurs.

THURSDAY
JANUARY 19, 1989

Hartford Courant

ADVANCES

Not a missing link

When scientists discovered a living coelacanth 50 years ago last month, they recognized it as belonging to a group of fishes thought to have been extinct for 80 million years and previously known only from fossils. The specimen, hooked by a fisherman, was quickly hailed as a "living fossil."

The coelacanth (pronounced see-la-kanth) had long been thought to represent an evolutionary transition from fishes to the first land animals. The newly caught coelacanth's fleshy fins, hinting at a resemblance to legs, helped earn it the label of missing link.

Today, however, there is a growing consensus among evolutionary biologists who have studied living specimens that coelacanths are not missing links. According to a recent report in the British journal Nature, the features of the coelacanth that generally link the fish to land animals are probably only coincidentally similar, writes Peter L. Forey of the British Museum (Natural History).

For one thing, fossil coelacanths were thought to have lungs, like several species of lungfish today. These lungs allow lungfish to live out of water for long periods. The structure, thought to have been the precursor of lungs in early amphibians, evolved into the swim bladder of the more advanced fishes. But living coelacanths, found off Madagascar, have no lungs.

'Creature' Baffling Biologists

NAIROBI, Kenya (UPI) — Should fisherman Mohamed Sefu's catch be biologically classified as a fish that crawls or a lizard that swims?

Whatever it is, it has arms, legs and fingers has excited fishermen in the Kilwa area of southern Tanzania.

The Tanzanian press reported that Sefu netted the fish-like creature of a type never previously seen in the

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Quirk

APPY HOUR

...ean nation to join the organi-
...tion since it was established
...years ago. Czechoslovakia is
...a charter member of GATT, but
...ended its membership under
...an erratic regime prior to the
...Communist coup of 1948.

Questions Pondered

...Thus, Poland's application,
...which will probably be consid-
...ered at the next GATT session
...in October, raises several deli-
...cate questions which concern the
...very future of the organization.
...GATT members are pledged
...to the reduction or elimination
...of tariffs and other obstacles to
...international trade. Tariff con-
...cessions are made on the princi-
...ple of the "most-favored na-
...tion"—meaning that concessions
...granted to one member of GATT
...are automatically extended to all
...others.

...It is this clause which ap-
...parently makes some members
..."leary" about Poland's appli-
...cation, because the Polish Com-
...munist government, which con-
...trols the entire economy, can
...use tariff and trade concessions
...for political reasons only. Thus
...the governments of free na-
...tions are limited by hard eco-

...tected-nation clause. Many mem-
...bers have, in fact, refused such
...treatment to Japan and Czecho-
...slovakia.

This protective clause, coupled with the hope of drawing Poland closer into the Western camp by virtue of GATT membership, gives Poland a fairly good chance to gain membership, observers here believe.

Poland has stated its recognition of the basic principles of no discrimination proclaimed by GATT.

...key Split

Athens

...al area of the Atlantic Pact
...that it plans to break off
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...off told Parliament his gov-
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Fish With Legs Puzzles Welsh

By the Associated Press

London

Two Welsh fishermen have called in help to identify a 20-pound fish with two short legs and tiny webbed feet.

The fish was four feet long. Its legs were about 8 inches long extending from its hind fins. Trevor and David Jones hooked it on a long line from a rowboat in Cardigan Bay, in Wales.

The fishermen kept it alive in the water-filled bottom of their boat and took it to the local fish expert at Aberaeron, Wales.

The expert, Evan Hughes, said he had never seen anything like it and that officials of the government fisheries office would come to Aberaeron to examine it.

The fish has a dark brown body with front fins resembling a skate's, a flat head measuring about 9 inches, slit eyes shaped like half moons, a tail, and rear fins like those of a dogfish—and those legs.

Arctic Sport

Eskimos in Alaska have a popular sport called nalakutuk, or blanket tossing. A tough walrus skin is used for the blanket, and the contestant is tossed high in the air. The winner is the one who can land and stay on his feet.

Marjorie Courtenay-Latimer, Naturalist, Is Dead at 97

By JEREMY PEARCE

Marjorie Courtenay-Latimer, a self-trained South African naturalist who in 1938 discovered the coelacanth, a species of bony, four-finned fish often described as a living fossil, died on May 17 in East London, South Africa. She was 97.

A cause of death was not determined, although she had suffered a series of falls, said Susan L. Jewett, a researcher for the Smithsonian Institution who recently visited her.

The story of Ms. Courtenay-Latimer's discovery remains among the most famous in the annals of modern biology. She was a young curator at the East London Museum when, on Dec. 22, 1938, she spotted the coelacanth in a pile of fish on a vessel at the town's dock. After taking steps to preserve the 127-pound fish, she sent a quick sketch to South Africa's leading fish expert, Dr. J. L. B. Smith of Rhodes University.

"With that action, Courtenay-Latimer became the point person and den mother for all who were to study the fish," said Dr. Keith S. Thomson, professor emeritus of natural history at Oxford University and author of the book "Living Fossil: The Story of the Coelacanth" (1991).

Dr. Thomson compared the discovery to finding a lost dinosaur on a south American plateau or a pterodactyl in the Everglades. Before Ms. Courtenay-Latimer's discovery, the coelacanth was thought to have been extinct for at least 70 million years.

As a living species, it is believed to hold a unique place in the evolutionary chain from fish to land vertebrates. Early theories that held that the fish might be a direct ancestor of humankind were disproved by studies in the 1980's of the coelacanth's anatomy and DNA.

Noted for finding a living fossil, a fish thought long extinct.

"We continually ask, how can this fish have evolved so little?" Dr. Thomson said.

Recalling her discovery, Ms. Courtenay-Latimer later wrote: "I saw a blue fin and, pushing off the fish, the most beautiful fish I had ever seen was revealed. It was five feet long and a pale mauve blue with iridescent silver markings." She added, "This I will definitely take to the museum."

The second coelacanth was caught 14 years later, in 1952, in the Indian Ocean off the Comoro Islands after an international effort by Dr. Smith to find more specimens of the fish. Some 200 coelacanths have been captured since, leading to a call to study the fish in its environment and to preserve the species. Several were found off the South African coast last month.

The significance of the coelacanth continues to unfold.

Dr. William E. Bemis, an evolutionary biologist at the University of Massachusetts, Amherst, said studies of the fish's eye muscles, used to close its jaws, had provided important links to how similar muscles in frogs and vertebrates worked. Other studies have shown that the fish possesses within its snout an electrosensory organ, the rostral organ, which scientists have determined is probably used to find prey.

East London (South Africa) Museum Archives

Marjorie Courtenay-Latimer in 1939 with the coelacanth she found.

Marjorie Courtenay-Latimer was born Feb. 24, 1907, the daughter of a railroad accountant who moved the family to stations throughout South Africa. While still a child, she began a collection of bird eggs and insects. She was educated at a convent school and intended to train as a nurse, but became curator at the East London Museum in 1931, a position she held until 1973. She never married.

Although best known for her discovery of the coelacanth, Ms. Courtenay-Latimer had a broader interest in natural history, and also wrote about wildflowers.

In 1971, she received an honorary doctorate from Rhodes University. In 1998, she was a guest of honor when the South African government unveiled a gold coin minted to commemorate the coelacanth's discovery. Ms. Courtenay-Latimer's scientific collaborator, Dr. Smith, named the species after her, Latimeria chalumnae.

Ms. Courtenay-Latimer is survived by two nieces and a nephew.

NEWSPAPER: THE NEW YORK TIMES
LOCATION: NEW YORK, NEW YORK
DATE: 7 JUNE 2004 MONDAY
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